

AR05

Alberta Energy Company Ltd.

1977 Annual Report

AN ALBERTA-BASED COMPANY
WITH MORE THAN 50,000
CANADIAN SHAREHOLDERS.

A WHOLLY CANADIAN-OWNED COMPANY
WITH MORE THAN 50,000 SHAREHOLDERS

- 96% of all shareholders are Albertans
- 85% of all shareholders own 100 shares or less
- AEC ranks in the top four publicly-traded Canadian companies according to the number of Canadian shareholders

COMPANY PROFILE

Alberta Energy Company Ltd. (AEC) is a wholly Canadian-owned company, which was established to provide Albertans and other Canadians with a special opportunity to participate in Alberta's development. Originally a Crown corporation, AEC became a public company in late 1975 with the sale of \$75 million in shares to Albertans, matching the investment by the Province of Alberta.

The Company's objectives are: operating at a profit and in the best interests of all shareholders; encouraging and enabling Canadians to participate in the development of Alberta's resource and industrial potential; and stimulating, advancing, and strengthening the industrial and resource bases of the Canadian economy.

AEC is participating in joint ventures with others who have successfully demonstrated the appropriate expertise in a particular business. The Company's preference is to participate in projects in such a way as to permit the cash flow and other benefits of the project to be received directly rather than by holding a minority share interest in other companies.

ANNUAL MEETING

The annual general meeting of shareholders of Alberta Energy Company Ltd. will be held at 421 Mayor Magrath Drive South, in Lethbridge, Alberta, at 3:00 p.m. local time on April 13, 1978.

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Energy Co. income jumps

*AEC, Luscar
plan joint
coal project*

AEC farms out
more deep rights

Bennett wants AEC-type company in B.C.

*AEC purchases
40% interest
in timber firm*

A YEAR OF ACTION

*Significant heavy oil finds made
in Suffield deep drilling program*

Gas gathering system
planned at Suffield

*Coal Valley project
nearing completion*

*Suffield deep drilling play
advances by leaps and bounds*

*Oil sands pipeline portion complete
despite adverse ground conditions*

Oil successes scored
in Suffield Block

*AEC acquires a one-third interest
in \$40 million ethane gas project*

*AEC plans \$200 million
capital investment in '77*

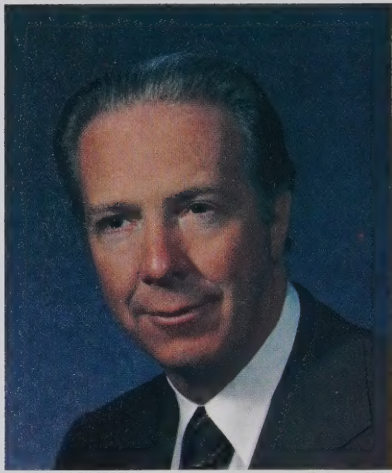
*AEC firm called
'financially healthy'*

HIGHLIGHTS

- Net earnings after provision for taxes were \$14,857,000 or 98c per share, up 76% from 1976.
- Cash flow was \$17,112,000, more than double that of 1976.
- The Company has gas sale contracts for the shallow gas underlying two-thirds of the Suffield Block and all of the deep gas discovered to date.
- An interest was acquired in a \$91 million coal venture.
- An Oil Access Agreement was signed for Suffield.
- Construction of AEC Power's \$270 million Syncrude Utilities Plant and Alberta Oil Sands' \$76.5 million pipeline was essentially completed.
- Farmout agreements were entered into with several oil companies for the drilling of 92 deep wells at Suffield by year-end 1978.
- An interest in a \$40 million ethane gathering system was acquired.
- The Whitecourt lumber manufacturing plant was completed.
- 249 shallow gas wells were drilled at Suffield in 1977, bringing the total to 528. Of the 53 deep tests drilled, 39 found gas or oil in one or more zones.
- \$75 million of AEC Power Bonds and \$45 million of Alberta Oil Sands Pipeline Bonds were sold.
- At year-end, gas production was 80 million cubic feet per day and oil production 400 barrels per day.



Suffield terrain



PRESIDENT'S REPORT TO SHAREHOLDERS

1977 was AEC's third year of active operation. As reflected in the Highlights, it was a year of considerable progress and appreciable growth in profit for shareholders. During this three-year period, significant progress has been made towards accomplishment of the Company's objectives.

THREE-YEAR REVIEW

AEC's Board of Directors, which is comprised of ten independent businessmen, was appointed in the latter half of 1974. In January 1975, the Company opened its doors with a staff of four. Operations then commenced to create this new Alberta-based company that was to provide special opportunity for Albertans and other Canadians to become investors in the continuing growth of the West.

AEC is now, and will remain, wholly Canadian-owned. Our shareholders, numbering more than 50,000, are mainly small investors, many of them experiencing their first ownership of a corporate share. Eighty-five percent of AEC's shareholders own 100 shares or less. And, a fact not widely known, this Company has more Canadian shareholders than all but three other publicly-traded Canadian companies.

There are neither elected representatives nor members of the public service serving as directors,

officers or employees. The Company is subject to taxation at the same rates as other Canadian corporations.

At year-end, the total staff in the Company's two principal offices was 91. An additional 53 people were working on the Suffield and pipeline field operations. The recruiting, organization and development of this staff into a team, to undertake the large assignments the Company is engaging in, has been an interesting challenge.

The Company commenced operations with a debt of \$1.7 million. AEC and its affiliates have since arranged for \$440 million in capital, of which \$150 million was obtained through the sale of shares.

Net earnings were \$4.0 million in 1975, \$8.5 million in 1976, and \$14.9 million in 1977.

Principal Projects and Investments

AEC owns two-thirds of the \$270 million AEC Power Utilities Plant, which will supply steam and electric power to the Syncrude project.

The Company has leases on 1,000 square miles of petroleum and natural gas rights underlying the Suffield Military Block. AEC's marketable gas reserves are 1.7 trillion cubic feet. Indicated oil in place owned 70 percent by AEC is approximately 350 million barrels, but with present producing procedures only a small percentage of this oil is eco-

nomically recoverable. Work is in progress to increase the oil recovery.

Alberta Oil Sands Pipeline Ltd., wholly-owned by AEC, operates the \$76.5 million, 270-mile, 22-inch pipeline which will transport synthetic crude from Ft. McMurray to Edmonton.

AEC has a 25 percent joint-venture interest in the \$91 million Coal Valley project, which is scheduled to commence coal sales by mid-1978.

At Whitecourt, Alberta, the Company has a 40 percent joint-venture interest in a \$28 million forestry operation which has 1.4 million acres of timber rights and a modern mill capable of producing 100 million board feet of lumber per year.

Steel Alberta, whose principal asset is a 20 percent ownership of Interprovincial Steel and Pipe Corporation Ltd., is owned 50 percent by AEC.

The Company is a 33⅓ percent owner of the \$40 million ethane gathering system presently being constructed in Alberta.

OUTLOOK

Cash flow and net earnings which have increased each year, are expected to show further significant gains in 1978. Cash flow will be received for the first time from the Utilities Plant, the Alberta Oil Sands Pipeline and the Coal Valley mine.

Suffield shallow gas development and deep exploratory drilling will continue at a rapid pace in

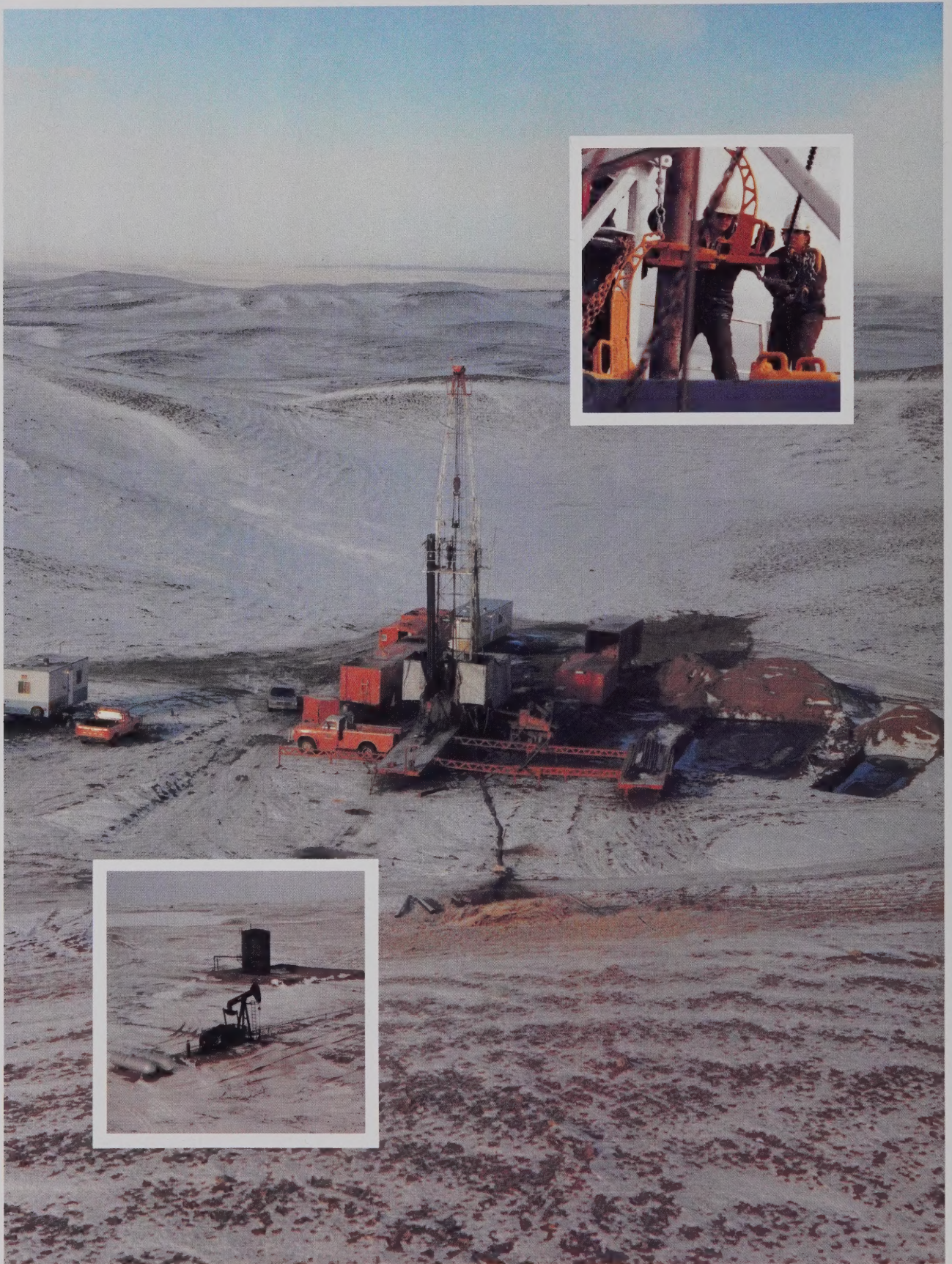
1978 under the terms of the Oil and Gas Access Agreements with the Department of National Defence. Several oil companies have committed to drill 92 deep tests at Suffield by year-end 1978.

1978 capital investment is estimated to be approximately \$100 million, exclusive of any amount that might be invested in the Company's Syncrude option. This is an option, but not an obligation, to purchase from 5 percent to 20 percent of the Syncrude project, at a total cost that could range from \$125 million to \$500 million. There is a likelihood that this decision will have to be made in 1978. If the option should be exercised, funds would be required in early 1979.

Another major 1978 decision will be whether to proceed with plans for a benzene plant. At the time of writing, government authorization is awaited on certain aspects of this project. There are many economic factors to be resolved, but the Company is hopeful that, should authorizations be obtained, the project will be suitable for investment.

Certain other significant corporate activities are in various stages of planning and consideration. The Company's principal focus continues to be on energy and other natural resource development.

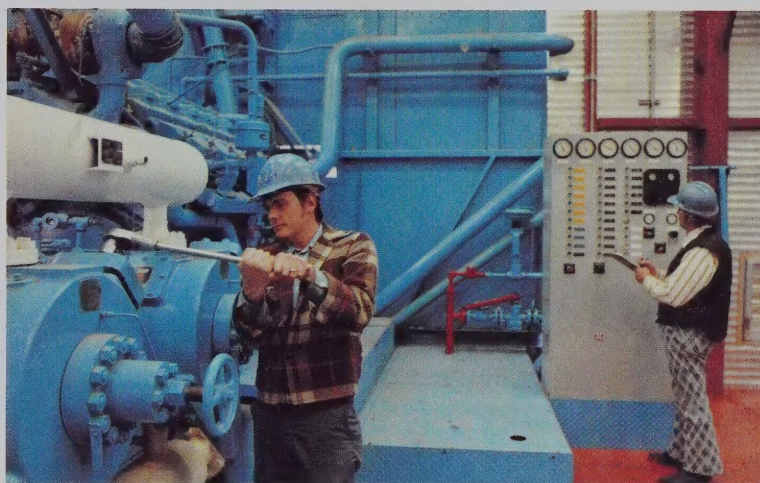
DAVID E. MITCHELL
President



Deep drilling rig
Inset top: Drilling operations
Inset bottom: Oil producing facilities



Compressor station



Interior of compressor station

SUFFIELD

1977 was an active year at the 1,000-square-mile Suffield Block. Results from both the shallow gas development and deep exploration drilling were encouraging.

GAS SALES

AEC has long-term gas sale contracts in place which enable the Company to sell all of the shallow gas developed to date, the deep gas now discovered, and all of the shallow gas expected to be developed over the next five years. At year-end, production was 80 million cubic feet per day from 340 gas wells.

SHALLOW GAS DEVELOPMENT

AEC has accelerated the shallow gas drilling program, and at year-end was conducting development activities in over 60 percent of the Suffield Block. The term "shallow" includes the Milk River, Medicine Hat, and Second White Specks zones, down to a depth of approximately 2,200 feet.

During the year, 286 miles of gas gathering pipelines were installed and three compression-dehydration stations were built, with an additional station under construction at year-end.

AEC is co-operating with the Federal and Provincial Government Departments of Environment in conducting all of its drilling and development operations at Suffield to protect the environment and existing archeological sites. Experimental test drilling and reseedling of selected areas within the environ-

mentally - sensitive region and environmental impact assessment studies have demonstrated to the satisfaction of the regulatory authorities that drilling and production operations can be conducted in these areas.

Two hundred and forty-nine shallow gas wells were drilled during the year, bringing the total at year-end to 528. AEC expects to drill approximately 300 shallow gas wells in 1978.

DEEP DRILLING

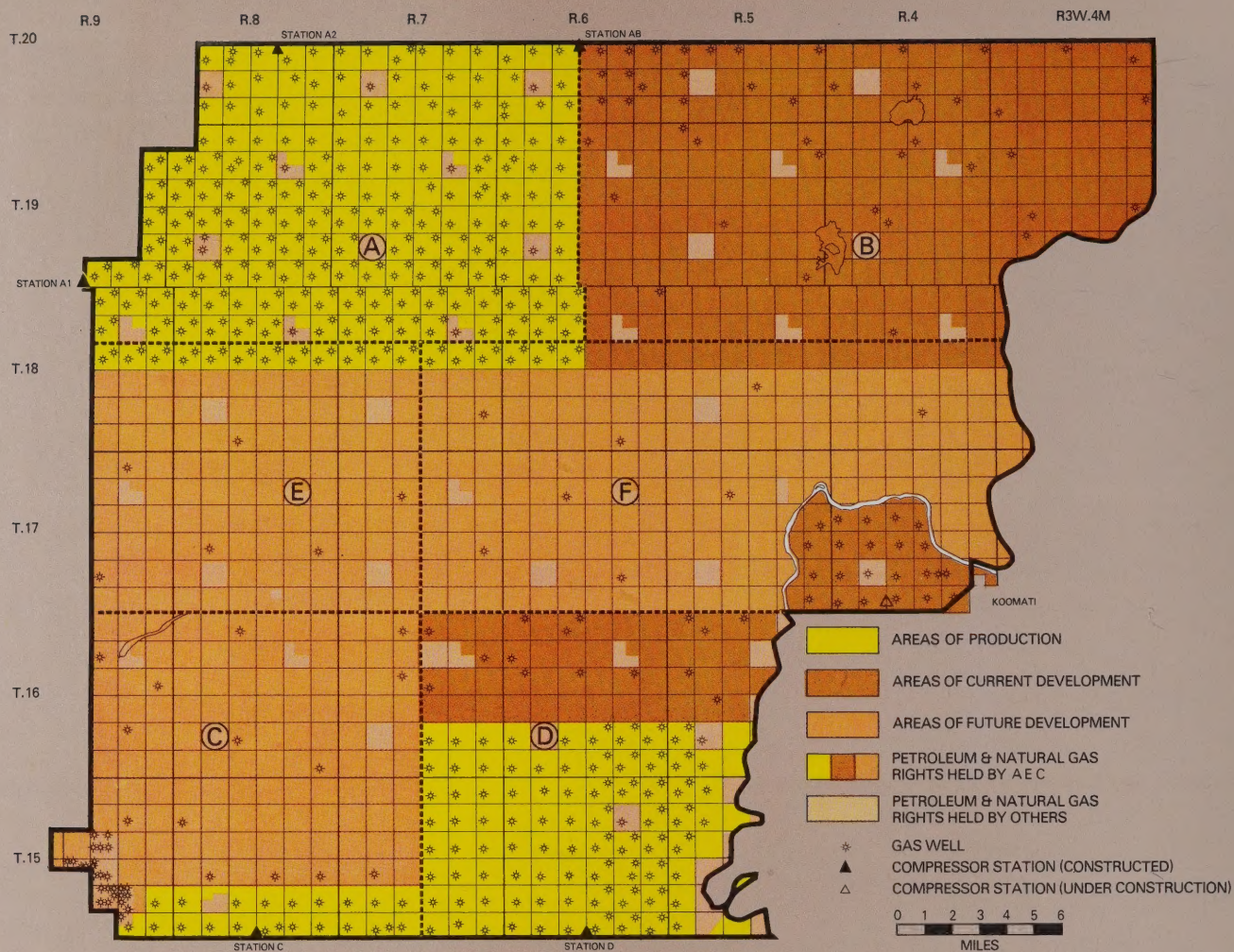
The Company's deep drilling programs (below 2,200 feet) are being carried out by several oil companies under farmout agreements.

Access to Areas "B" and "D" in the northeastern and southeastern portions of the Block respectively was gained during 1977, before schedule, permitting the farmout of these areas for exploratory drilling. The farmout agreements call for 550 miles of seismic surveys to be conducted and 92 deep wells to be drilled, all at no cost to the Company. The companies carrying out the program will expend an estimated \$15 million to earn an interest in the petroleum and natural gas rights in the deep zones only.

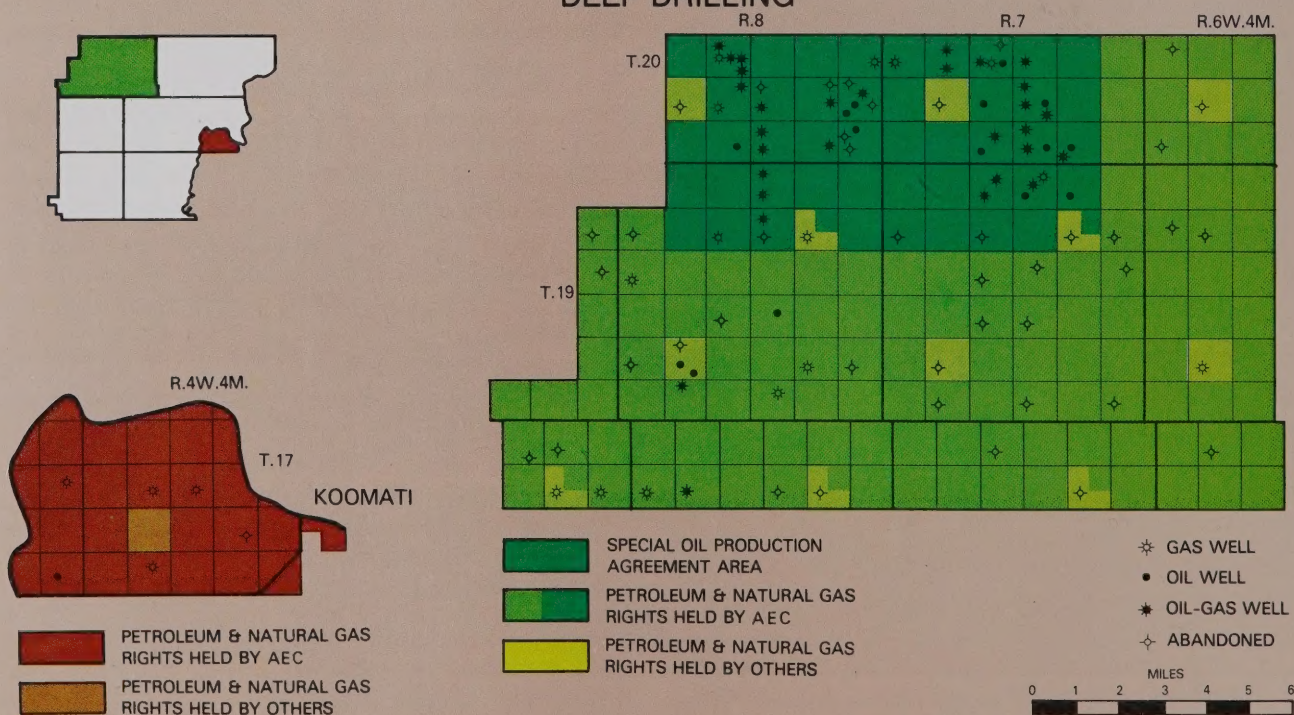
A farmout agreement, with AEC retaining a 50 percent working interest, was also concluded for the exploration of the deep rights in the Koomati area located on the eastern side of the Suffield Block.

There was significant success in the 1977 deep drilling program in Area "A." Thirty-nine of the fifty-three wells found oil, gas, or both in one or more

SHALLOW DRILLING



DEEP DRILLING





Recessed wellhead



zones. Engineering studies and further development drilling will be required to properly assess the economic potential of these finds, but results to date are encouraging. Studies are now being conducted relating to injection of water for pressure maintenance, and work is progressing on a thermal combustion scheme to improve recovery of the oil reserves. Results of these studies and tests will help determine the optimum method of recovery and production. The Company's current oil production rate is 400 barrels of oil per day from 17 wells. This rate is expected to increase significantly during the year with the addition of more wells.

Discovery of commercial quantities of heavy oil at Suffield necessitated negotiations with the Department of National Defence for access to develop and produce the oil. An Oil Access Agreement has now been signed by both the Federal and Provincial Governments which provides for access to the entire Suffield Block for the purpose of developing and producing oil. The Agreement also provides that AEC may install equipment above ground in a 50-section tract for the production and treatment of essentially all reserves found to date in Area "A."

During 1978, the Company expects to participate in the drilling of about 50 wells to follow up the deep discoveries. AEC retains a 50 percent interest in Koomati and up to 70 percent interest in wells drilled under farmout agreements. To date in Area "A," where most of the development has occurred, the Company has elected to take a 70 percent working interest.

RESERVES

An engineering appraisal of the Suffield gas reserves has been made by independent petroleum consultants. The new estimate, 1.7 trillion cubic feet of marketable gas, is about 10 percent less than the same consultants estimated one year ago. The reduction results in part from production during the year and to a change in the pressure base used as the reference point. The principal change, however, is a result of development drilling and testing operations in the southeastern portion of the Block showing that a small portion of the Milk River pay section, previously thought by the consultants to be productive, appears incapable of producing significant volumes of gas. The consultants assume that this condition extends to other undeveloped portions of the Suffield Block and this has been reflected in the new estimate of reserves. While the approach may be conservative, it seems proper to restate all Milk River reserves.

Production rates of the wells drilled during the past year are greater than initial projections. This reduces development costs and adds to the value of the reserves.

The consultants also estimated that approximately 350 million barrels of crude oil in place have been found in the northwest portion of the Block. About 11 million barrels are considered to be producible employing the present method of production. AEC has a 70 percent interest in these oil reserves. The Company has undertaken detailed engineering studies of these reservoirs to increase the recovery of the oil.



Syncrude Utilities Plant

AEC POWER LTD.

At December 31, 1977, the Utilities Plant owned by AEC Power Ltd. was 98 percent complete. The Plant is scheduled for completion by early spring at an estimated cost of \$270 million, significantly less than the original estimate of \$300 million.

The Utilities Plant will supply the steam, electric power and processed water required for the Syncrude mining, extraction and upgrading facilities. The Plant contains three boilers, each with a capacity of 750,000 pounds of steam per hour. The gas produced as a by-product of the fluid cokers is used as a fuel by the boilers. The electricity is produced by two gas turbine generators and four steam turbine generators with a total capacity of 260 megawatts — or a capability of producing electrical energy to supply 50 percent of the requirements of a city the size of Calgary or Edmonton.

By the end of 1977, the plant was producing electricity on a limited basis to supply Syncrude's needs. The completed portions of the Plant have

been turned over to the Syncrude participants who will operate the facility for AEC Power. Four million man-hours were required to complete this Plant.

Arrangements were completed in 1977 for the financing of the remaining construction costs.

Under the Energy Sales Agreement with Syncrude, AEC Power is entitled to a rate of return on equity of from 13 percent to 22 percent. Negotiations are now in progress to determine the rate of return within this range.



Pipe bending



Construction on ethane gathering system

PIPELINES

ALBERTA OIL SANDS PIPELINE LTD.

In 1977, Alberta Oil Sands Pipeline Ltd. (AOSPL), completed construction of the pipeline which will transport synthetic crude to be produced by the Syncrude project, near Ft. McMurray, to Edmonton.

Although construction of three pumping stations is not complete, the pipeline has been used to transport 760,000 barrels of start-up gas-oil and naphtha required by Syncrude as the initial charge for its facilities. The oil used to push the products to the plant will remain in the line until the plant is placed on production. In addition, AOSPL's Redwater Pipeline system delivered 25 million barrels of crude oil from the Redwater area oil fields to the Edmonton refinery area.

The 22-inch diameter, 270-mile-long pipeline was constructed in three sections, and initially will be capable of transporting 163,500 barrels of oil per day.

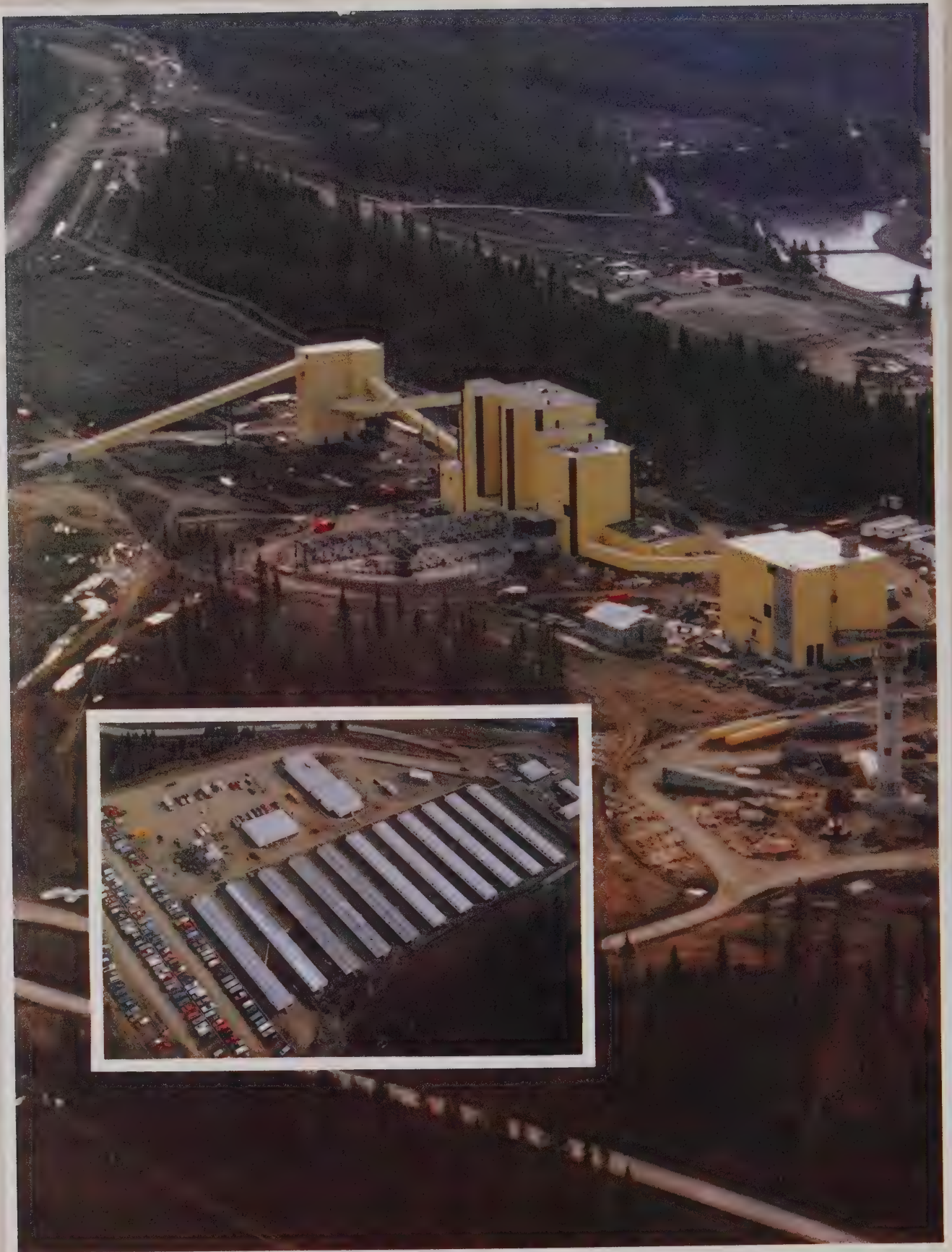
Negotiations are under way to determine the rate of return on the equity portion of the cost of the pipeline that will be used in the calculation of the tariff.

The pipeline, estimated to cost \$76.5 million, is scheduled to start up in May 1978. It will be operated by AOSPL from a control centre located on the eastern outskirts of Edmonton.

ETHANE GATHERING SYSTEM

AEC is a one-third owner of a 400-mile-long Ethane Gathering System being constructed in the province. A portion of the \$40 million system is now in operation. The entire system is expected to be operational late in 1978.

The initial capacity of the system will be about 76,000 barrels per day. A portion of the ethane will be upgraded to ethylene in Alberta and the remainder shipped eastward. Salt cavern storage is being developed for use in conjunction with the pipeline.



Coal Valley
Inset: Construction camp



Commuting helicopter



Dragline

COAL

At year-end, construction of facilities at the Coal Valley mine site was almost complete, with coal sales expected to commence by mid-1978. AEC has a 25 percent joint-venture interest in this \$91 million project.

The mine is located in Alberta, approximately 56 miles southwest of Edson and 49 miles southeast of Hinton. The Coal Valley property consists of 18,300 acres of which 2,800 acres have been fully explored. The explored portion of the property contains an estimated 58 million clean short tons of proven and probable surface-mineable coal.

Removal of the overburden and commissioning of the facilities is in progress.

The major component of the coal production and cleaning process will be the preparation plant. The raw coal delivered to the preparation plant by haulage trucks will be discharged into receiving hoppers. From these hoppers the coal will be fed to a breaker and then to the preparation plant where it will be cleaned by a heavy-medium cyclone system. After dewatering, the coal will move to the dryer and then to two 7,500-ton capacity concrete silos (equivalent to one and one-half unit trains) or to an open coal stockpile.

The principal equipment used to mine the coal is a 42-yard electric walking dragline, an electric shovel, 100-ton diesel electric haulage trucks, front-end loaders and hydraulic backhoes.

The mine will operate 24 hours a day, 7 days a week and will employ 315 people. The Town of Edson will be home base for the mine employees and accommodations are being constructed in the town to house the personnel. The workers will be flown to and from the mine site by a 32-passenger helicopter.

The rate of production of the facilities on completion will be 2.5 million tons of clean high-grade thermal coal per year. Two million tons will be sold annually under a long-term contract to Ontario Hydro for power generation. The remainder will be sold to an off-shore customer. Four unit trains will run on a continuous basis, each hauling 10,000 tons of coal and making one round trip to Thunder Bay, Ontario, per week. There, the coal will be loaded aboard Lake vessels for shipment to the generating stations of Ontario Hydro.



Transporting logs



Spiral pipe

FORESTRY

Construction of the lumber manufacturing plant at Blue Ridge, near Whitecourt, Alberta, was completed in mid-1977. This plant is the first of three phases for the planned development of a forestry complex in which AEC holds a 40 percent joint-venture interest. When fully operational, the lumber manufacturing plant will be capable of producing 100 million board feet of lumber per year, enough lumber to build 12,500 average homes.

Special equipment has been installed at the Blue Ridge plant to detect higher-quality lumber which can be used for special structural applications such as roof trusses. This stress-rated lumber will command higher-than-normal prices.

Forestry operations were severely hampered in 1977 by wet weather which resulted in lower-than-expected productivity from the Blue Ridge plant.

Lumber prices, which were very weak in the first half of 1977, experienced a dramatic rise in late summer. Some moderation in price has occurred, but the market for Canadian lumber is expected to remain strong during 1978.

Phase Two of the complex, a plant to produce glued-lumber products, is scheduled for design in 1978. Preliminary studies are being conducted on Phase Three, a facility to utilize wood chips and fibre.

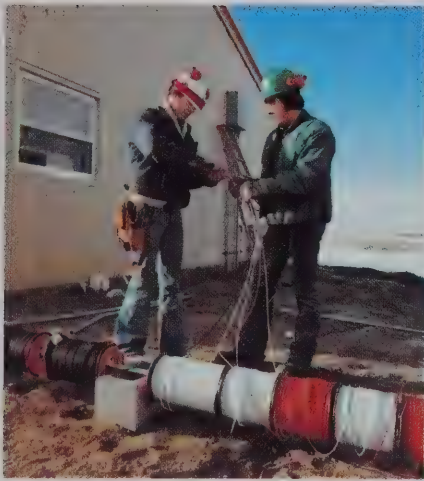
The joint owners have the right to harvest and the responsibility to reforest 1.4 million acres in the Whitecourt and adjacent forests. In total, the existing wood resource under management has the potential of yielding eight billion board feet of lumber.

OTHER ACTIVITIES

Syncrude — AEC is presently evaluating its option to purchase a participating interest of between 5 percent and 20 percent in the \$2.1 billion Syncrude project — an oil sands mining and bitumen upgrading venture. The Company has the right, but not an obligation, to exercise this option. Comprehensive studies of the economics of this project are now in progress.

AEC Heavy Oil Ltd. — This company, a wholly-owned subsidiary, was formed in 1977 to investigate possible participation in heavy oil production and the construction and ownership of facilities that may be required to upgrade, process and transport heavy oil.

Steel Alberta Ltd. — This company, 50 percent-owned, continues its examination of projects related to the development of primary steel-making facilities which would produce an acceptable return and benefit the industrial development of Alberta. Steel Alberta owns 20.1 percent of Interprovincial Steel and Pipe Corporation Ltd. IPSCO's net income



Project workers at Company sites

for 1977 was \$9,784,000, an increase of 5 percent over the previous year.

Pan-Alberta Gas Ltd. — This 50 percent affiliate continues to be actively involved in the marketing of natural gas being produced in Alberta. Pan-Alberta is presently selling gas for consumption in Quebec, Saskatchewan and the Pacific Northwest. Pan-Alberta recently filed an application with the Alberta Energy Resources Conservation Board for the export of additional gas under a short-term swap arrangement, as well as for additional quantities of gas for the eastern Canadian market.

Petrochemicals Alberta Project — The Alberta Energy Resources Conservation Board has recommended approval of PETALTA's application for an Industrial Development Permit to build a 1.1 billion pounds-per-year benzene plant. While awaiting further governmental approvals, the consortium is contacting potential customers for the proposed output of benzene and co-products and is continuing its marketing studies.

Willowglen Company Limited — In 1977, an investment of \$1.7 million was made in this high-technology Canadian electronics firm. AEC has a 76 percent interest in this company which specializes in the design and assembly of electronic process control equipment for industrial and pipeline use.

AEC is actively investigating or developing opportunities in other energy and natural resource fields such as uranium, petrochemicals, coal and forestry.

PERSONNEL

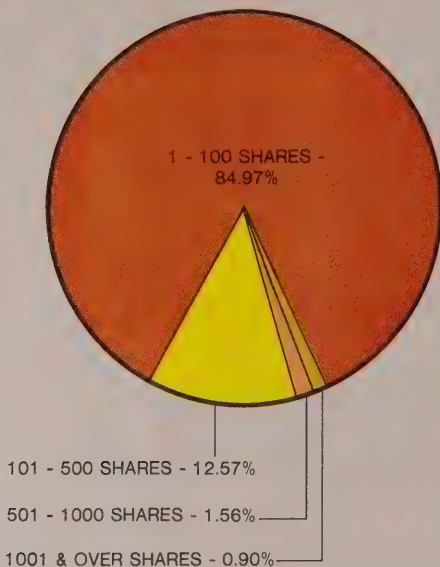
The Company has an enthusiastic and qualified staff. The Company's ability to attract and retain good people has contributed greatly to its success and is providing a firm foundation on which to build. Employee development and promotion from within are part of the Company's personnel objectives.

By year-end, the number of permanent office staff was 91. The Suffield and Alberta Oil Sands Pipeline field staff, together with the Suffield district office staff totalled an additional 53.

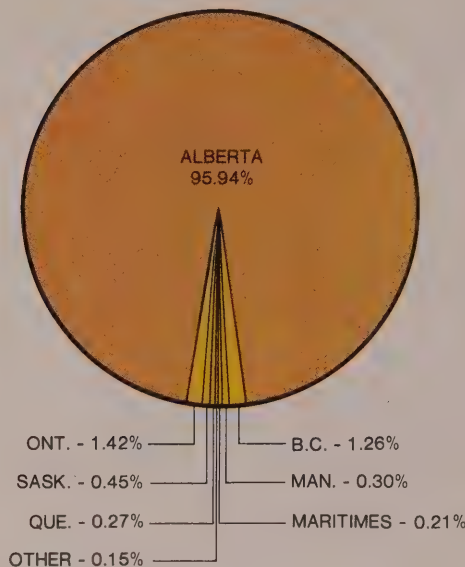
An opportunity to own shares in the Company is offered to all employees through a Savings Plan. Ninety-five percent of the eligible employees are AEC shareholders through participation in the Plan.

Company staff are under considerable work pressure as a result of rapid growth in activities. Growing from a staff of four to the present size, while simultaneously developing the large investments that the Company is making, has been a significant organizational undertaking. The staff have responded very well indeed to the challenges placed before them.

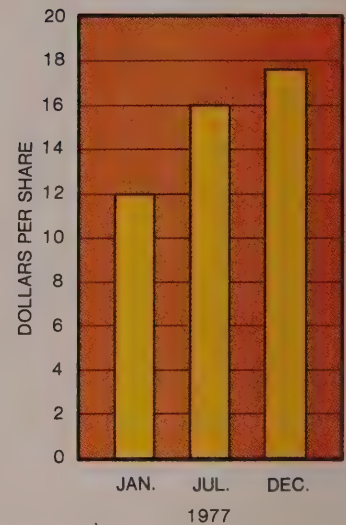
**SHAREHOLDERS BY
SIZE OF HOLDINGS**



**GEOGRAPHIC ANALYSIS
OF SHAREHOLDERS**



**CLOSING PRICES OF AEC
SHARES — 1977
(Toronto Stock Exchange)**



YOU ASKED US ...

Q—What is a joint venture?

A— A joint venture is created when two or more persons (companies) contribute certain resources (e.g., managerial, financial or industrial property or resources) to establish a business to be carried on jointly by them under defined rules. Those persons share directly, in the proportions agreed by them, the revenues, profits and losses of the business.

Q—What do I do if I receive more than one copy of the Annual Report?

A— AEC encourages shareholders who receive more than one copy of the report to consolidate their holdings under exactly the same name to prevent receiving future duplications. You can do this by contacting our Transfer Agents, National Trust Company, Limited, at any of their offices across Canada.

Q—Can we cut Company overhead if I don't receive annual or other reports?

A— The law requires that a public company shall send to each shareholder copies of financial statements, at the last address as shown on the books of the Company, and requires the mailing of proxy statements. The Company must abide by these rules.

Q—Where can I buy more AEC shares?

A— You can buy or sell shares through a stock broker. Some banks and trust companies will also assist you. A standard commission fee is charged on these transactions, as established by the stock exchanges. The fee is not paid to the Company.

Q—How many AEC shares traded during the year and what was the trading value?

A— During 1977, the number of AEC shares trading on all Exchanges averaged 7,105 daily. The total share trading volume for the year was 1,795,000 and the total trading value \$27.5 million.

Q—How do I get my share certificate replaced if it's lost or destroyed?

A— You must furnish, at your expense, an indemnity bond for its replacement. The Company's Transfer Agents, National Trust, handle these inquiries and will provide advice regarding necessary documentation. Shareholders are advised to keep their certificates in a safe place and to record certificate numbers.

Q—Who do I notify if I change my address?

A— Notice in writing, stating the exact name the shares are registered in, the old address and the new address, should be sent to the Company's Transfer Agents, National Trust, who handle these changes.

Q—How many Directors does the Company have, and are any members of the Government on the Board of Directors?

A— There are no members of the Government on the Board. All ten members of the Board are independent Canadian businessmen. The Alberta Government nominates three of the ten people on the Board.

FINANCIAL REVIEW

Net earnings for 1977 increased significantly to \$14,857,000 or 98c per share, 76 percent over the 1976 earnings of \$8,460,000 or 56c per share. Cash flow totalled \$17,112,000, or more than double the level achieved in 1976.

The largest contribution to 1977 revenues and earnings was revenue from the first full year's production of gas and oil from the Suffield Block. Production revenue for the year, after payment of \$7,600,000 royalties to the Province, totalled \$14,950,000.

AEC invested more than \$109 million during 1977 in projects and acquisitions, including \$33 million for Suffield Block development, \$41 million in constructing the Alberta Oil Sands Pipeline, \$23 million in development of the coal venture, and \$9 million in the ethane gathering system. In addition to these investments of AEC and its consolidated subsidiaries, AEC Power invested a further \$76 million in construction of the Utilities Plant.

AEC's cumulative investment to the end of 1977 in properties and in affiliated companies is approximately \$241 million. This includes substantial amounts for properties currently under development that will contribute revenue in future years. The most notable of these are the coal venture that will commence coal sales in mid-1978 and those portions of the Suffield Block that are still under active development.

Total investment in the Alberta Oil Sands Pipeline system is now \$60.9 million, and it is anticipated that a further \$15.6 million will be required early in 1978 to complete the system and provide the line-fill. Costs to the end of 1976 were financed by AEC's equity investment and advances provided by AEC. During 1977, \$45 million of First Mortgage Sinking Fund Bonds were issued and agree-

ments signed that provide for a further issue in June 1978, of up to \$17.25 million of additional First Mortgage Bonds.

Arrangements have been completed for the balance of the financing of AEC Power Ltd. This company, owned two-thirds by AEC, is the owner of the Utilities Plant which services the Syncrude project. Cost of the Plant, nearing completion, is estimated at \$270 million, substantially less than the \$300 million originally estimated. Financing of this facility has been provided in the form of a \$31 million equity investment, \$175 million of First Mortgage Sinking Fund Bonds sold in Canada and a United States dollar Series of First Mortgage Sinking Fund Bonds of up to \$55 million. Arrangements for the United States dollar Series provide that the funds will be drawn down in 1978. Residual financing requirements, if any, can be met from established lines of credit.

Contractual arrangements with the participants in the Syncrude project, for the pipeline system owned by Alberta Oil Sands Pipeline Ltd. and the Utilities Plant owned by AEC Power Ltd., provide for a return on equity and cover all costs, including those of servicing the related debt. The debt outstanding is also guaranteed in the unlikely event of abandonment of the Syncrude project, so neither the two companies nor AEC will be required to provide their funds for debt repayment obligations.

By the time the Syncrude-related facilities are put into operation early in 1978, AEC will have equity investments in the pipeline system and Utilities Plant of approximately \$16.5 million and \$20.5 million respectively. The agreements under which these facilities were constructed provide for a percentage return on these equity funds. The return to be earned is to be negotiated or, if necessary, arbitrated. At the time of writing this report, negotiations were in progress and proceeding satisfactorily.

AUDITORS' REPORT

To the Shareholders of
Alberta Energy Company Ltd.:

We have examined the consolidated balance sheet of Alberta Energy Company Ltd. as at December 31, 1977 and the consolidated statements of earnings, retained earnings and changes in financial position for the year then ended. Our examination of the financial statements of Alberta Energy Company Ltd., its subsidiaries and the affiliate of which we are auditors was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances. We have relied on the reports of other auditors who have examined the financial statements of the other affiliates and the joint ventures.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1977 and the results of its operations and the changes in its financial position for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

PRICE WATERHOUSE & CO.
Chartered Accountants
Edmonton, Alberta
January 27, 1978

CONSOLIDATED BALANCE SHEET**ASSETS****CURRENT ASSETS**

	December 31	
	1977	1976
	(in thousands)	
Cash and short-term investments (Note 3)	\$ 21,371	\$ 87,154
Accounts receivable and accrued revenue	7,087	1,752
Inventories (Note 2)	1,568	916
Prepaid expenses	445	644
	30,471	90,466
INVESTMENT IN AFFILIATED COMPANIES (Note 3)	30,244	25,570
PROPERTY, PLANT AND EQUIPMENT (Note 4)	206,618	99,299
OTHER ASSETS AND DEFERRED CHARGES (Note 5)	5,958	1,084
	<u>\$273,291</u>	<u>\$216,419</u>

LIABILITIES**CURRENT LIABILITIES**


Bank loan - secured	\$ 716	\$
Accounts payable and accrued liabilities	12,910	12,089
Current portion of long-term debt and deferred liability (Notes 6 and 7)	1,350	10,000
	14,976	22,089
DEFERRED REVENUE	762	1,500
LONG-TERM DEBT (Note 6)	44,558	
DEFERRED LIABILITY (Note 7)	30,000	30,000
DEFERRED INCOME TAXES	8,595	3,555
	<u>98,891</u>	<u>57,144</u>

SHAREHOLDERS' EQUITY

Share capital (Note 8)		
Authorized - 100,000,000 shares without par value		
Issued and fully paid - 15,090,976 (1976 - 15,068,976)	147,344	147,076
Retained earnings	27,056	12,199
	<u>174,400</u>	<u>159,275</u>
	<u>\$273,291</u>	<u>\$216,419</u>

Approved by the Board:

 Director

 Director

CONSOLIDATED STATEMENT OF EARNINGS

	Year Ended December 31	
	1977	1976
	(in thousands)	
INCOME FROM OPERATIONS (Note 9)		
Gas and oil	\$10,709	\$ 461
Forestry	(958)	(1,385)
Other	(161)	
	9,590	(924)
INTEREST ON SHORT-TERM INVESTMENTS	4,676	10,455
	14,266	9,531
GENERAL AND ADMINISTRATIVE EXPENSES	2,350	1,969
INCOME BEFORE TAXES AND EQUITY EARNINGS	11,916	7,562
PROVISION FOR INCOME TAXES - Deferred	5,040	3,555
- Current	(1,102)	(75)
	3,938	3,480
EQUITY IN EARNINGS OF AFFILIATES (Note 3)		
AEC Power Ltd.	2,747	1,648
Steel Alberta Ltd.	752	852
Pan-Alberta Gas Ltd.	1,171	276
	4,670	2,776
ALLOWANCE ON EQUITY FUNDS EMPLOYED DURING CONSTRUCTION	2,209	1,602
NET EARNINGS	\$14,857	\$ 8,460
EARNINGS PER SHARE	98c	56c

CONSOLIDATED STATEMENT OF RETAINED EARNINGS

	Year Ended December 31	
	1977	1976
	(in thousands)	
BALANCE - BEGINNING OF YEAR	\$12,199	\$ 3,739
NET EARNINGS	14,857	8,460
BALANCE - END OF YEAR	\$27,056	\$12,199

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

	Year Ended December 31	
	1977	1976
	(in thousands)	
SOURCE OF FUNDS		
Income before income taxes and equity earnings	\$ 11,916	\$ 7,562
Income tax	1,102	75
Non-cash items, principally depletion and depreciation	4,094	626
Funds from operations	17,112	8,263
Deferred revenue	(738)	1,500
Issue of share capital	269	80
Issue of long-term debt	45,908	
Repayment of advances to affiliated company	900	
	<u>63,451</u>	<u>9,843</u>
USE OF FUNDS		
Investment in property, plant and equipment (Note 4)		
Gas and oil	33,092	17,702
Pipelines	50,435	10,407
Coal	22,843	
Forestry	2,159	9,583
Other	491	325
	<u>109,020</u>	<u>38,017</u>
Investment in affiliated companies	994	16,032
Other assets and deferred charges	4,969	490
Current portion of long-term debt and deferred liability	1,350	10,000
	<u>116,333</u>	<u>64,539</u>
DECREASE IN WORKING CAPITAL	52,882	54,696
WORKING CAPITAL - BEGINNING OF YEAR	68,377	123,073
WORKING CAPITAL - END OF YEAR	<u>\$ 15,495</u>	<u>\$ 68,377</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 1977

1. Summary of significant accounting policies**(a) Investments in other entities****Subsidiaries —**

The accounts of Alberta Energy Company Ltd. ("AEC") are consolidated with those of other companies in which AEC owns more than 50% of the voting shares. These include Alberta Oil Sands Pipeline Ltd. ("AOSPL") which is wholly-owned and Willowglen Company Limited, in which a 76.2% ownership was acquired in 1977 and the results of which have been included since the acquisition date.

Affiliates —

Where AEC owns 50% or less of the voting shares of another corporation and is in a position of exerting significant influence in the decisions made by such investees, AEC has adopted the equity method of accounting for such investments. Under this method AEC's proportionate share of the affiliates' earnings is included in income and the investment is carried at cost plus equity in undistributed earnings since acquisition.

Joint Ventures —

Where AEC participates in unincorporated joint ventures, it follows the proportionate consolidation method of accounting. Under this method AEC's proportionate share of each of the assets, liabilities, revenues and expenses associated with a joint venture is combined with similar categories within AEC's accounts. AEC participates in unincorporated joint ventures as follows:

Forestry — 40%
 Ethane Gathering System — 33⅓% (acquired in 1977)
 Coal — 25% (acquired in 1977).

(b) Property, plant and equipment

Gas and Oil —

AEC employs the full cost method of accounting for gas and oil properties and capitalizes all costs related thereto. Petroleum and natural gas leases are situated in the Suffield Block and are being developed on an area basis. Costs associated with producing areas are amortized using the unit of production method based on estimated proven reserves. Costs associated with non-producing areas are accumulated until production is commenced.

Pipelines —

Allowances for return on equity and borrowed funds employed during construction are included in the capitalized cost of the pipelines.

Forestry —

The cost of acquiring timber harvesting rights is depleted on the basis of timber cut and removed as it relates to the volume of timber estimated to be recoverable.

(c) Deferred charges

Costs incurred in investigating projects are deferred pending investment decisions. Costs of project investigations which result in investments are included in the cost of such investments. When it is determined that investments will not result, costs related to these investigations are charged against income.

Product development costs are deferred and amortized on a straight-line basis over the expected useful life of the products (currently seven years). Financing costs are amortized in equal annual amounts over the life of the related debt.

2. Inventories

Inventories are valued at the lower of cost and estimated net realizable value. They consist of:

	1977	1976
Raw materials	\$ 411,103	\$605,952
Work-in-process	869,206	124,426
Finished goods	287,561	185,642
	<u>\$1,567,870</u>	<u>\$916,020</u>

3. Investment in affiliated companies at equity

	AEC Power Ltd.	Steel Alberta Ltd.	Pan-Alberta Gas Ltd.	1977 Total	1976 Total
Common shares	\$16,032,200	\$ 10,000	\$ 999,900	\$17,042,100	\$16,048,600
Advances (unsecured)		5,659,515		5,659,515	6,559,515
Equity in undistributed earnings since acquisition	4,394,879	1,882,426	1,264,690	7,541,995	2,962,254
	<u>\$20,427,079</u>	<u>\$7,551,941</u>	<u>\$2,264,590</u>	<u>\$30,243,610</u>	<u>\$25,570,369</u>

(a) AEC Power Ltd. ("AEC") (66⅔% equity interest; 50% voting interest)

At December 31, 1977 AEC's utilities plant was estimated to be 98% complete with completion scheduled for March, 1978.

AEC's share of the return on equity invested, based on a 15% provisional rate, pending determination of the rate of return relating to the plant, has been included in income under the caption "Equity in Earnings of Affiliates".

AEC has advanced AEC \$10,000,000, payable on demand. As AEC has arranged long-term financing for the estimated balance of the construction costs, such advances have been included under "Cash and short-term investments".

(b) Steel Alberta Ltd. (50% equity interest; 50% voting interest)

Steel Alberta owns 20.1% of Interprovincial Steel and Pipe Corporation Ltd. and accounts for this investment on the equity method.

(c) Pan-Alberta Gas Ltd. (50% equity interest; 40% voting interest)

4. Property, plant and equipment

	1977		1976	
	Cost	Accumulated depreciation, depletion and amortization	Net	Net
Producing properties				
Gas and oil (Suffield Block)				
Lease rights	\$ 27,893,089	\$ 451,947	\$ 27,441,142	\$ 7,079,256
Intangible development	25,925,301	1,276,339	24,648,962	7,708,293
Equipment	20,376,085	1,428,196	18,947,889	7,246,953
	<u>74,194,475</u>	<u>3,156,482</u>	<u>71,037,993</u>	<u>22,034,502</u>
Forestry				
Plant and equipment	9,914,758	1,000,090	8,914,668	6,733,866
Timber harvesting rights	898,454	20,141	878,313	898,454
	<u>10,813,212</u>	<u>1,020,231</u>	<u>9,792,981</u>	<u>7,632,320</u>
	<u>85,007,687</u>	<u>4,176,713</u>	<u>80,830,974</u>	<u>29,666,822</u>
Properties under development				
Gas and oil	30,886,843		30,886,843	49,800,208
Pipelines				
— AOSPL pipeline	60,904,822		60,904,822	17,550,521
— Ethane gathering system	9,312,188	47,055	9,265,133	
Coal	22,843,379		22,843,379	
Forestry	919,790		919,790	1,690,778
	<u>124,867,022</u>	<u>47,055</u>	<u>124,819,967</u>	<u>69,041,507</u>
Other property, plant and equipment ...	1,218,517	251,208	967,309	590,203
TOTAL	<u>\$211,093,226</u>	<u>\$4,474,976</u>	<u>\$206,618,250</u>	<u>\$99,298,532</u>

5. Other assets and deferred charges

This is comprised of deposits and amounts receivable of \$594,092 (1976 - \$426,027), loans under Share Purchase Plans of \$901,281 (1976 - \$657,504), project investigation costs of \$1,657,363 (1976 - \$391,716), unamortized financing costs of \$1,079,479 and unamortized product development costs of \$1,725,332.

6. Long-term debt

AOSPL First Mortgage Sinking Fund Bonds:

Series A — 9 $\frac{5}{8}$ %, due June 15, 1997	\$30,000,000
Series B — 9 $\frac{3}{4}$ %, due June 15, 1997	15,000,000
	<u>45,000,000</u>
Current portion	1,350,000
	<u>43,650,000</u>
Other	907,997
	<u>\$44,557,997</u>

A total of \$30,000,000 principal amount of AOSPL Series A Bonds was issued on June 15, 1977 and \$15,000,000 Series B Bonds on December 15, 1977. AOSPL has arranged to issue between \$12,750,000 and \$17,250,000 of additional Series B Bonds on June 15, 1978 to finance the remainder of the related construction costs. These bonds are secured by a first and fixed charge upon AOSPL's fixed assets and a floating charge on all its other assets.

Outstanding debt related to the AOSPL pipeline is guaranteed by the Syncrude Participants in the event of abandonment of the Syncrude Project.

Fixed sinking fund payments commence on June 15, 1978 for Series A Bonds and June 15, 1979 for Series B Bonds at a rate sufficient to retire in each year $4\frac{1}{2}\%$ of the issued bonds.

7. Deferred liability

Under the terms of an agreement AEC acquired its rights to the Suffield Block for \$54,000,000. AEC has paid \$24,000,000 (including \$10,000,000 paid in 1977) and the balance is payable in three annual installments of \$10,000,000 commencing one year after recovery of expenditures, as defined.

8. Share capital

(a) Changes in outstanding shares during the year were as follows:

	1977		1976	
	Number of shares	Net proceeds	Number of shares	Net proceeds
Issued for cash	25,500	\$ 306,275	12,000	\$ 128,880
Redeemed for cancellation	3,500	37,590	5,088	48,743
Net increase in the year	22,000	268,685	6,912	80,137
Share capital — beginning of year	15,068,976	147,075,663	15,062,064	146,995,526
Share capital — end of year	15,090,976	\$147,344,348	15,068,976	\$147,075,663

(b) At December 31, 1977, 25,536 shares (1976 - 1,036) are reserved for the Share Purchase Plan established for officers and employees.

9. Supplementary information to statement of earnings

	1977				1976
	Gas and Oil	Forestry	Other	Total	Total
Gross operating revenue (net of royalties)	\$14,950,458	\$4,774,200	\$552,960	\$20,277,618	\$1,296,495
Depletion, depreciation and amortization. . .	3,001,603	769,198	179,009	3,949,810	532,175

Interest costs totalled \$2,452,259 (1976 - \$91,960) of which \$2,371,414 (1976 - \$91,960) has been capitalized as construction costs.

10. Remuneration of directors and senior officers

The aggregate direct remuneration paid by AEC and its subsidiaries to its directors as directors was \$48,200 (1976 - \$49,000) and to its senior officers as officers \$352,318 (1976 - \$314,098).

11. Commitments

The Company's commitments relate to properties under development and expenditures are expected to be incurred as follows:

1978	\$21,136,000
Subsequent thereto	\$ 6,000,000

12. Contingent liability

The Company is one of four defendants in a legal action, recently commenced, claiming general and special damages totalling \$7,700,000, arising from the awarding of contracts for the construction of two pipelines to serve the Syncrude project. According to counsel, no estimate of the outcome or the liability, if any, can be given at this early stage.

No provision has been made in the financial statements for the liability, if any, of the Company in connection with this action.



BOARD OF DIRECTORS

Mathew M. Baldwin
Company Director
Edmonton, Alberta

Peter L. P. Macdonnell, Q.C.
Partner, Milner & Steer
Barristers and Solicitors
Edmonton, Alberta

David E. Mitchell
President and Chief Executive Officer
Alberta Energy Company Ltd.
Calgary, Alberta

Edward A. Galvin
Vice Chairman
Norcen Energy Resources Limited
Calgary, Alberta

John E. Maybin
Chairman of the Board
Canadian Utilities Limited
Toronto, Ontario

Raymond J. Nelson
President
Nelson Lumber Company Ltd.
Lloydminster, Alberta

M. Earl Lomas, Q.C.
Partner, Macleod Dixon
Barristers and Solicitors
Calgary, Alberta

Stanley A. Milner
President
Chieftain Development Co. Ltd.
Edmonton, Alberta

Gordon H. Sissons
President, I-XL Industries Ltd.
Medicine Hat, Alberta

J. Harry Tims
President and General Manager
McTavish McKay & Company Limited
Calgary, Alberta

OFFICERS

David E. Mitchell
President and Chief Executive Officer

Jack G. Armstrong
Senior Vice President, Finance

Kenneth R. King
Senior Vice President

Nicholas J. Lashuk
Senior Vice President

John D. Watson
Assistant Treasurer

Arlene J. Moore
Corporate Secretary

Kathleen D. Kraus
Assistant Corporate Secretary

**ADMINISTRATION
AND PERSONNEL**
Frank W. Proto

AEC HEAVY OIL LTD.
Floyd D. Aaring
President

COMPTROLLER
Lorne A. Carrier

GENERAL COUNSEL
Robert W. Hayes

MANAGERS

Edward R. Alexander
Manager, Business Development
Derek S. Bwint
Manager, Financial Evaluations

Roger D. Dunn
Manager, Coal
Jack E. Ellefson
Manager, AOSPL

Hector J. McFadyen
Manager, Economics
Gwyn Morgan
Manager, Suffield
Robert W. Ruff
Manager, Accounting

CORPORATE INFORMATION

Head Office	Calgary Office
#1100,	#2400,
10621 - 100 Avenue	639 - 5th Avenue S.W.
Edmonton, Alberta	Calgary, Alberta
T5J 0B3	T2P 0M9

REGISTRAR

National Trust Company, Limited
Edmonton, Alberta

TRANSFER AGENTS

National Trust Company, Limited
Edmonton, Calgary, Vancouver,
Winnipeg, Toronto, Montreal;
and its agent,
Canada Permanent Trust
Company in Regina

STOCK EXCHANGE LISTINGS

Alberta Stock Exchange
Montreal Stock Exchange
Toronto Stock Exchange
Vancouver Stock Exchange

AUDITORS

Price Waterhouse & Co.
Chartered Accountants
2401 Toronto Dominion Tower
Edmonton Centre
Edmonton, Alberta
T5J 2Z1

SUBSIDIARIES

Alberta Oil Sands Pipeline Ltd. — 100%
AEC Heavy Oil Ltd. — 100%
Alberta Industrial Gas Suppliers, Ltd. (inactive) — 100%
Willowglen Company Limited — 76%

AFFILIATES

AEC Power Ltd. — 66²/₃%
Pan-Alberta Gas Ltd. — 50%
Steel Alberta Ltd. — 50%

JOINT VENTURES

Coal Valley Project — 25%
Ethane Gathering System — 33¹/₃%
Whitcourt Forestry Complex — 40%

Copies of the Company's 1977 Annual Report may be obtained by contacting the office of the Secretary of the Company at Alberta Energy Company Ltd., #2400, 639 Fifth Avenue S.W., Calgary, Alberta T2P 0M9.

Alberta Energy Company Ltd.

1977 ANNUAL REPORT